Remarks

Reconsideration of this Application is respectfully requested. Claims 1-5, 7-19, 21-46 and 48-54 are pending in the application, with claims 1, 16, 24 and 35 being the independent claims.

Information Disclosure Statement

Applicants filed an Information Disclosure Statement (IDS) on September 14, 2004. While timely filed, Applicants recognize that the IDS was likely not received by the Examiner prior to the mailing of the final Office Action. Applicants, however, respectfully request that the IDS be considered by the Examiner because it was timely filed and the appropriate fee was timely paid.

Change of Address and Docket Number

On October 24, 2002, Applicants filed a request to have the docket number in this application changed to IMMR-028/00US and to have all correspondence directed to the address provided on the signature page included herewith. Applicants again respectfully request that these administrative changes be made to prevent any future delays in delivery of Office Actions related to this application.

Rejections Under 35 U.S.C. 103(a)

Claims 1-5, 7-19, 21-46 and 48-54 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,373,463 to Beeks ("the Beeks patent") in view of U.S. Patent No. 5,766,016 to Sinclair et al. ("the Sinclair patent") and further in view of U.S. Patent No. 6,618,037 to Sakamaki et al. ("the Sakamaki patent").

Independent Claims 1, 24 and 35 and their Dependent Claims

Independent claim 1 recites "updating data values associated with at least a portion of a virtual hand displayed in a graphical environment of a host computer based on manipulation of at least a portion of an object coupled to the host computer, *the portion of the virtual hand directly contacting a virtual body part to produce a virtual palpation within the graphical environment; and outputting haptic feedback to the object when the virtual palpation within the graphical environment occurs.*" Independent claim 24 recites a "*portion of the virtual hand directly contacting a virtual body part to produce a virtual palpation within the graphical environment*; and outputting haptic feedback to the object based on interaction of the portion of the virtual hand with a graphical representation within the graphical environment, the haptic feedback simulating a palpated feature that is one of on and below the surface of the graphical representation." Independent claim 35 recites "an actuator coupled to the manipulatable object and configured to output haptic feedback *based on interaction of the portion of the virtual hand with a region within the graphical representation, the haptic feedback simulating the palpation of the virtual being.*"

None of the references disclose or suggest outputting haptic feedback when a virtual palpation occurs in the graphical environment, where the virtual palpation includes a portion of a virtual hand directly contacting a virtual body part as recited in claims 1, 24 and 35.

As an initial matter, the Examiner's examination appears to be based on a prior version of the claims. In particular, the Examiner states that both the Beeks patent and the Sinclair patent fail to teach or suggest "the object being representative of a body part (as a hand cursor) and configured to be contacted by a user hand." The feature discussed by the Examiner, however, does not appear in the claims.

That said, based on the Examiner's use of the Sakamaki patent, it appears that the

Examiner suggests that neither the Beeks patent nor the Sinclair patent discloses or suggests at

least "a virtual hand displayed in a graphical environment of a host computer based on

manipulation of at least a portion of an object coupled to the host computer, the portion of the

virtual hand directly contacting a virtual body part to produce a virtual palpation within the

graphical environment" as recited in claim 1. Indeed, no such disclosure or suggestion exists in

either the Beeks patent or the Sinclair patent of a virtual hand directly contacting a virtual body

part to produce a virtual palpation. The only body part disclosed in either patent is the virtual

eyeball disclosed in the Sinclair patent.

To overcome this deficiency, the Examiner relies on impermissible hindsight

reconstruction of Applicants' invention to "pick and choose" a virtual hand that is disclosed in

the Sakamaki patent for the teaching of a hand touching an object "that could be a human or any

other body parts [sic]" (see Office Action at p. 3). The Examiner states that it would have been

obvious to combine the teaching of the Sakamaki patent "into the combined system of Beek's

[sic] [and Sinclair] because it would have touched or located an object (such as anatomy) on a

display with a hand gesture rather than a cursor." Armed with the knowledge of Applicants'

invention, the Examiner improperly combines the *three* references despite a lack of teaching or

suggestion in the references themselves to do so. "When an obviousness determination is based

on multiple prior art references, there must be a showing of some 'teaching, suggestion, or

reason' to combine the references." Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340 (Fed.

Cir. 2000). In the present case, there is no such teaching, suggestion, or reason.

Moreover, combining the Sakamaki patetn with the Sinclair patent impermissibly

destroys the intended function of the Sinclair patent. In particular, replacing the surgical

instrument disclosed in the Sinclair patent with a virtual finger or hand as disclosed in the

Sakamaki patent would essentially eviscerate the purpose of the Sinclair patent. The surgical instrument of the Sinclair patent is only useful to the extent that it actually simulates an eye surgery procedure. The finger-shaped cursor of the Sakamaki patent would never be combined with the Sinclair device because the surgical simulator would not function as intended in the Sinclair patent (i.e., the Sinclair patent would not function as a surgical simulator if it simply acted as a simulator for contacting an eye with a finger). Thus, the proposed combination of the Sakamaki patent with the Sinclair patent is improper because the intended function of the Sinclair patent is destroyed.

For at least these reasons, the references, either alone or in combination, fail to disclose or suggest the invention as recited by independent claims 1, 24 and 35. Based at least on their dependence upon independent claims 1, 24 or 35, dependent claims 2-5, 7-15, 25-34, 36-46 and 48-54 are also allowable.

Independent Claim 16 and its Dependent Claims

Independent claim 16 recites "updating data values associated with at least a portion of a virtual hand displayed in a graphical environment of a host computer based on manipulation of at least a portion of an object coupled to the host computer; and outputting haptic feedback to the object based on a signal associated with an interaction of the portion of the virtual hand with a graphical representation of a simulated being, *the haptic feedback being a simulated pulse of the virtual being.*"

None of the cited references discloses or suggests "***haptic feedback being a simulated pulse of [a] virtual being***" as recited in independent claim 16. In fact, the Office Action is *once again completely silent with respect to the elements recited in claim 16 related to a simulated pulse.* The Examiner states, in reference to claim 17, that Beeks discloses outputting haptic feedback based on instructions "including the pulse taking training program (In fig. 2 element

202) including an instruction to take the simulated pulse of the simulated being (In Fig. 3 bottom

of the screen with different pulse going up and down on a display from 5000 to 11000)" (see

Office Action at p. 4). The Examiner's position is untenable.

As an initial matter, the Beeks patent does not disclose or suggest a pulse taking training

program, let alone any pulse taking functionality whatsoever. The Examiner's reliance on

element 202 of the Beeks patent, which is disclosed as the "main processor" is entirely without

support. The Beeks patent does not disclose or suggest a simulated being. The Examiner's

reliance on the "bottom of the screen" of Fig. 3 to illustrate a pulse is inexplicable. As

unmistakably identified in the specification of the Beeks patent, "Fig. 3 illustrates a sample

graphical user interface for an aircraft computer" (col. 3, lines 12-13). Moreover, the portion of

the screen to which the Examiner refers does not show anything that "[goes] up and down." At

best, the portion of the screen is representative of aircraft altitude increasing through a range of

values. Simply no suggestion exists whatsoever of anything remotely related to a pulse or a

simulated being in the Beeks patent. For at least this reason, the references, either alone or in

combination, fail to disclose or suggest the invention as recited by independent claim 16. Based

at least on their dependence upon independent claim 16, dependent claims 17-19 and 21-23 are

also allowable.

Conclusion

All of the stated grounds of rejection have been properly traversed or rendered moot.

Applicants therefore respectfully request that the Examiner reconsider all presently outstanding

rejections and that they be withdrawn. Applicants believe that a full and complete response has

been made to the outstanding Office Action and, as such, the present application is in condition

for allowance. If the Examiner believes, for any reason, that personal communication will

expedite prosecution of this application, the Examiner is invited to telephone the undersigned at

the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

COOLEY GODWARD LLP

Date: <u>December 7, 2004</u>   By: _____

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